Saurauia homotricha (Actinidiaceae), a New Species from Honduras and Nicaragua

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ABSTRACT. *Saurauia homotricha*, a new species from montane forests of western Honduras and Nicaragua, is described and illustrated. It is placed in the Central American series *Gymnogynae* Buscalioni and is most similar to *Saurauia rubiformis* Vatke, from which it differs most markedly in the type, length, and distribution of trichomes on the leaves and the abaxial surface of the sepals.

The genus *Saurauia* consists of approximately 300 species from the Neotropics (excluding the Antilles) and tropical Asia. Twenty-five species have been recognized for Mexico and Central America; 22 are treated in Hunter's (1966) revision of the Mexican and Central American species, with 2 more Mexican species described by Keller and Breedlove (1981) and 1 more from Honduras described by Soejarto (1985). An additional species of *Saurauia* from Honduras and Nicaragua was recognized during preparation of a treatment of the Actinidiaceae for the *Flora de Nicaragua* and is here described. The pubescence terminology employed is that described and illustrated in Hunter's revision.

Saurauia homotricha A. Pool, sp. nov. TYPE: Nicaragua. Nueva Segovia: Río Achuapa, al sur del Cerro Mogotón, 1500 m, 12 June 1975 (buds and flowers), *Atwood & Neill 16* (holotype, MO; isotype, HNMN?). Figure 1.

Species nova *Saurauiae rubiformi* Vatke similis, sed ab ea foliis supra inter venulas setulosis trichomatibus 1–1.5 mm longis infra inter venulas hirsutis atque stellato-pilosis, sepalorum partibus in alabastro expositis plumuloso-setulosis trichomatibus 1.75–2 mm longis differt.

Small tree, ca. 5 m tall, the young branches densely covered with shaggy-hirsute to shaggy-setose trichomes; trichomes to 2 mm long, shaggy mainly at base, golden to rusty-brown, mixed with minute, appressed-stellate trichomes. Leaves alternate, aggregated at tips of branches. Petioles 1.5–3.5 cm long, terete, indumentum as on young branches. Leaf blades oblanceolate, 19–28 cm long, 7–11 cm wide, short-acuminate at apex, cuneate to rounded at base, serrulate, with 16–29 pairs of secondary veins; tertiary veins more prominent on abaxial surface than higher order venation; adaxial surface abundantly to sparingly covered with setose trichomes 1–1.5 mm long; abaxial surface abundantly covered with a mixture of hirsute and stellate trichomes with long spreading arms, with primary and secondary veins densely covered by shaggy-setose trichomes. Inflorescence a narrow, axillary thyrse with 9–20 flowers, 3.5–14 cm long, peduncle 1.5–6 cm long, indumentum as on young branches; flowers actinomorphic, 14–18 mm diam.; sepal aestivation quincuncial, sepals elliptic to oblanceolate, 7–9 mm long, 4–4.5 mm wide, obtuse at apex, non-ciliolate, adaxial surfaces densely covered with minute, appressed-stellate trichomes, abaxial surface of outer two sepals densely covered with 1.75–2 mm long, shaggy-setose trichomes throughout, abaxial surface of imbricate sepal with exterior half (half exposed in bud) densely covered with 1.75–2 mm long, shaggy-setose trichomes and interior half densely covered with minute, appressed-stellate trichomes, abaxial surface of two inner sepals medially with dense 1.75–2 mm long, shaggy-setose trichomes and laterally and marginally densely covered with minute, appressed-stellate trichomes; petals 5, connate at base, oblong, 6–7 mm long, 3–5 mm wide, obtuse at apex, white; stamens 20–26, filaments adnate to base of corolla, 1.5–2 mm long, pubescent at base, trichomes filiform, anthers 2–2.5 mm long; ovary globose, glabrous, 5-locular, styles 5, 4–5 mm long. Fruit a berry, globose, 5-sulcate, ca. 5 mm diam., glabrous.

Soejarto (1969) suggested that many species of *Saurauia* have dimorphic flowers: one form functionally staminate with short styles and high pollen fertility and the other form functionally pistillate with long styles and low pollen fertility. A short-styled form of *Saurauia homotricha* is not currently known.

Hunter (1966) recognized four series in *Saurauia* for Mexico and Central America: *Gymnogynae* Buscalioni, *Gynotrichae* Buscalioni, *Oreophilae* Buscalioni, and *Laevigatae* Buscalioni. *Saurauia homotricha* belongs to the series *Gymnogynae*, which (as emended by Hunter) is characterized by leaves

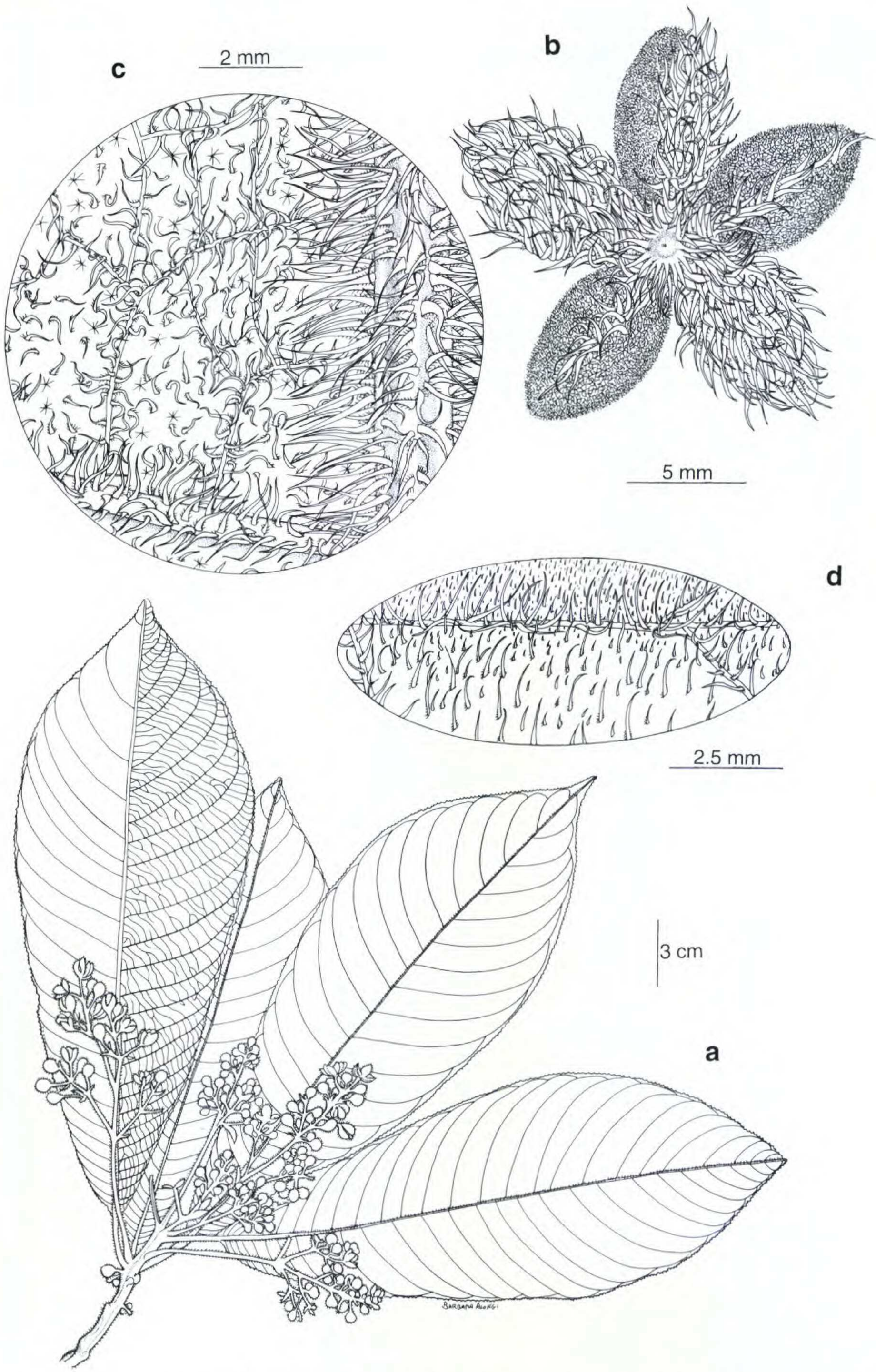

Figure 1. *Saurauia homotricha* A. Pool. —a. Flowering branch. —b. Calyx, abaxial surface. Sepal position starting at 12 o'clock and moving clockwise: imbricate, inner, outer, inner, outer. —c. Leaf, abaxial surface. —d. Leaf, adaxial surface.

with tertiary veins prominent abaxially, sepals densely pubescent and non-ciliolate, and ovaries and fruits glabrous. Within this series, three of the species recognized by Hunter resemble *S. homotricha* in having the adaxial surface of all the sepals completely and densely covered with minute, appressed-stellate trichomes. Hunter's key to these species may be amended to include *S. homotricha* as follows:

1a. Adaxial surface of leaves abundantly sericeous; abaxial surface between veins with dendroid and long-armed stellate trichomes; longer trichomes of sepals shaggy-strigose . . *S. villosa* DC. (Mexico)
1b. Adaxial surface of leaves abundantly to sparsely covered with setose, shaggy-setose or cluster-type trichomes; abaxial surface between veins without dendroid trichomes, the stellate trichomes with medium to very short arms or, if arms longer, then unbranched trichomes also present; longer trichomes of sepals shaggy-setose.
2a. Adaxial surface of leaf abundantly to sparsely covered with setose trichomes 1–1.5 mm long, surface smooth to touch; abaxial surface between veins abundantly covered with mixture of hirsute and stellate trichomes; abaxial surface of outer sepals homotrichous, trichomes 1.75–2 mm long . . . . *S. homotricha* (Nicaragua and Honduras)
2b. Adaxial surface of leaf with scattered, shaggy-setose trichomes less than 1 mm long (often only base of hair present), and/or cluster-type trichomes, surface scabrous; abaxial surface between veins with sparse to scattered, stellate to radiate trichomes; abaxial surface of outer sepals heterotrichous with longer trichomes to 1 mm long (often only base of trichomes present) mixed with dense, minute-appressed stellate trichomes.
3a. Abaxial surface of leaf with sparse, medium-armed stellate trichomes (the longest arms ca. 0.2–0.3 mm long); flowers 9–13 mm diam.; inflorescence usually more than 70-flowered . . *S. pittieri* J. Donnell Smith (Costa Rica and Panama)
3b. Abaxial surface of leaf with scattered, radiate to short-armed stellate trichomes (the longest arms ca. 0.1 mm long); flowers 15–22 mm diam.; inflorescence usually less than 60-flowered . . . . . *S. rubiformis* Vatke (Guatemala, Honduras, Costa Rica, and Panama)

The South American species of *Saurauia* most similar to *Saurauia homotricha* belong to the series *Macrophyllae* Buscalioni, as emended in Soejarto's revision of the South American species (1980). The two species most similar to *S. homotricha* are *Saurauia herthae* Sleumer and *S. prainiana* Buscalioni. They both differ from *S. homotricha* in having the larger trichomes of the sepals, peduncles, and petioles strigose. In addition, the abaxial leaf surface of *S. herthae* has predominately stellate trichomes, with the unbranched trichomes restricted to the veins. In *S. prainiana*, the area between the veins has a combination of setose and radiate trichomes; in *S. prainiana* var. *prainiana* the trichomes are predominately radiate and in *S. prainiana* var. *pastasana* (Diels) Soejarto, they are predominately setose.

Specimens of *Saurauia homotricha* have been distributed under a variety of names: *Saurauia villosa*, *S. veraguasensis* Seemann, and *S.* cf. *scabrida* Hemsley. *Saurauia homotricha* is distinguished from *S. villosa* in the preceding key. *Saurauia veraguasensis* (= *Saurauia montana* Seemann) is distinguished from *S. homotricha* by its densely pubescent ovary and its sepals with adaxial surfaces submarginally glabrous, the abaxial surface of the two outer sepals heterotrichous with shaggy-strigose trichomes mixed with minute, appressed-stellate trichomes, and the two inner sepals ciliolate. *Saurauia scabrida* is distinguished from *S. homotricha* by its ciliolate sepals, with the adaxial surfaces submarginally glabrous (rarely pubescent for apical half to three-quarters of length) and the abaxial surface of the two outer sepals heterotrichous, with shaggy-strigose to shaggy-setose trichomes less than 1 mm long mixed with minute, appressed-stellate trichomes.

Paratypes. HONDURAS. **Intibucá:** Barranca Yamaranguila, cerca de Yashse, 1500 m, 12 abr. 1956 (buds), *Molina R. 6513* (US). **Comayagua:** in summit forest, cloud zone, range above El Achiote, above plains of Siguatepeque, 1850 m, 1 Aug. 1936 (buds), *Yuncker et al. 6261* (MO). **Morazán:** slopes of Cerro Uyuca (near El Zamorano), ca. 1800 m, 10 Oct. 1975 (buds, flowers, fruit), *Pilz & Pilz 1354-b* (MO).

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